



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/316,805	05/21/1999	JOHN RAITHEL HIND	CR9-99-033	8335

25259 7590 04/23/2003

IBM CORPORATION  
3039 CORNWALLIS RD.  
DEPT. T81 / B503, PO BOX 12195  
REASEARCH TRIANGLE PARK, NC 27709

EXAMINER

SONG, HOSUK

ART UNIT	PAPER NUMBER
----------	--------------

2131

DATE MAILED: 04/23/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/316,805

Applicant(s)

HIND ET AL.

Examiner

HOSUK SONG

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on May 21, 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2,3 6) ☐ Other:

Art Unit: 2131

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traw et al.(US 5,949,877) in view of Traw et al.(US 6,542,610).

Claims 1,2: Traw disclose exchanging device certificates of first and second device in (col.7,lines 7-13,37-43). Device certificate having a unique hardware id is disclosed by Traw in (col.7,lines 28-30). Traw disclose cryptographically verifying the received certificate using the public key of Certificate Authority and exchanging challenges created by each of first and second devices in (col.7,lines 25-31, 44-60). Traw disclose responding to respective challenges by signing received challenge,using the receiving devices's private key, private keys residing in the respective protected storage in each device and returning signed challenges in (col.7,lines 66-67;col.lines 1-17 and col.10,lines 40-50). Traw disclose cryptographically verifying that received challenge signature is of the challenge previously sent by receiving device and establishing a key agreement between first and second devices in (col.8,lines 11-17). Traw disclose establishing secure communications if all of prior verifying steps succeed in (col.8,lines 18-29). Traw does not

Art Unit: 2131

specifically disclose negotiating a two-way session encryption and mutual authentication requirements between first and second device. Traw patent disclose establishing initial session between first and second device and negotiating two way session encryption and mutual authentication requirements between two devices in (fig.2 and col.7,lines 6-25). It would have been obvious to person of ordinary skill in the art at the time invention was made to have pre-authenticated process as taught in Traw with device certificate method disclosed in Traw because secure communication can be achieved before actual delivery of secure contents thus adding security of its content. Further, it provides an assurance to each entity as to origin of its data sources and how data is routed to the destination thereby minimizing data compromise.

Claim 3: Traw disclose first established session is an authenticated connection in (col.8,lines 21-26).

Claim 4: Traw disclose first established session is an encrypted connection in (col.3,lines 49-52).

Claim 5: Traw disclose unique hardware identifier is a machine address in (col.10,lines 40-50).

Claims 6,7:examiner takes Official notice that write-only storage,read-write storage to store or perform computation is well known in the art. For example (EEPROM,DRAM,etc). Write only EEPROM can be used to store keys and can be written into the memory by the encryption circuitry, but he key can not be read from any other external leads connected to the chip thus providing full protection of its key against outside attacks. One of ordinary skill in the

Art Unit: 2131

art would have been motivated to use these storage because it offers protection and data can be readily retrieved and access at user's discretion.

Claim 8: Traw disclose public key of a CA is a public key of a root CA in (col.10,lines 40-46).

Claims 9-16 differs from claims 1-8 in that computer program code is claimed. It is inherent in system of Traw to include a software code in order to perform cryptographic processing. The examiner asserts that performing a cryptographic functions by a computer without implementation of software is not possible.

Claims 17,18: Traw disclose exchanging device certificates of first and second device in (col.7,lines 7-13,37-43). Device certificate having a unique hardware id is disclosed by Traw in (col.7,lines 28-30). Traw disclose cryptographically verifying the received certificate using the public key of Certificate Authority and exchanging challenges created by each of first and second devices in (col.7,lines 25-31, 44-60). Traw disclose responding to respective challenges by signing received challenge,using the receiving devices's private key, private keys residing in the respective protected storage in each device and returning signed challenges in (col.7,lines 66-67;col.lines 1-17 and col.10,lines 40-50). Traw disclose cryptographically verifying that received challenge signature is of the challenge previously sent by receiving device and establishing a key agreement between first and second devices in (col.8,lines 11-17). Traw disclose establishing secure communications if all of prior verifying steps succeed in (col.8,lines 18-29). Traw does not specifically disclose negotiating a two-way session encryption and mutual authentication

Art Unit: 2131

requirements between first and second device. Traw patent disclose establishing initial session between first and second device and negotiating two way session encryption and mutual authentication requirements between two devices in (fig.2 and col.7,lines 6-25). It would have been obvious to person of ordinary skill in the art at the time invention was made to have pre-authenticated process as taught in Traw with device certificate method disclosed in Traw because secure communication can be achieved before actual delivery of secure contents thus adding security of its content. Further, it provides assurance to each entity as to origin of its data sources and how data is routed to the destination thereby minimizing data compromise.

Claim 19: Traw disclose first established session is an authenticated connection in (col.8,lines 21-26).

Claim 20: Traw disclose first established session is an encrypted connection in (col.3,lines 49-52).

Claim 21: Traw disclose unique hardware identifier is a machine address in (col.10,lines 40-50).

Claims 22,23: examiner takes Official notice that write-only storage,read-write storage to store or perform computation is well known in the art. For example (EEPROM,DRAM,etc).

Write only EEPROM can be used to store keys and can be written into the memory by the encryption circuitry, but he key can not be read from any other external leads connected to the chip thus providing full protection of its key against outside attacks. One of ordinary skill in the

Art Unit: 2131

art would have been motivated to use these storage because it offers protection and data can be readily retrieved and access at user's discretion.

Claim 24: Traw disclose public key of a CA is a public key of a root CA in (col.10,lines 40-46).

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. .

a. Weber et al.(US 6,178,409) disclose initial communication session before transfer of certificates.

4. Any inquiry concerning this communication should be directed to Hosuk Song whose telephone number is (703)305-0042. The examiner can normally be reached on Tues-Fri from 6:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gail Hayes, can be reached on (703)305-9711.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)305-3900.

*Asst G*



**GAIL HAYES**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**